Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of balancing a rotary device for balanced rotational operation when connected to a drive shaft by a flexible coupling, the said method comprising the steps of:

(a) connecting a drive shaft simulator to the said rotary ~~device~~ device, and

(b) rotating the said device to simulate drive shaft unbalance due to misalignment of the rotary device and the drive shaft being simulated, and due to drive shaft eccentricity and/or angular misalignment with respect to the axis of the said rotary device when the drive shaft and rotary device are connected ~~together.~~together,

wherein the said drive shaft simulator has a polar moment of inertia substantially equal to its diametral moment of inertia and is positioned with respect to the rotary device such that its centre of gravity is substantially coincident with the plane of flexibility of the flexible coupling, which in use, connects the rotary device to the drive shaft being simulated, whereby to simulate the effect of angular misalignment of the drive shaft being simulated with respect to the rotary device.

2. (Canceled)

3. (Original) A method as claimed in Claim 1 wherein the mass of the said drive shaft simulator is substantially half the mass of the drive shaft to be simulated, whereby to simulate the effect of drive shaft eccentricity.

4. (Canceled)

5. (Original) A method as claimed in Claim 1 further comprising the step of determining a balancing correction to be applied to the said rotary device for balanced

operation of the said rotary device when connected to a drive shaft of the type being simulated by a flexible coupling.

6. (Original) A method as claimed in Claim 1 wherein the said rotary device comprises an engine or a device to be driven by the said engine and a drive shaft of the type being simulated.

7. (Original) A method as claimed in Claim 1 wherein the said rotary device comprises a gas turbine engine or engine module thereof, or an auxiliary device to be driven by the said engine and a drive shaft of the type being simulated.

8. (Currently Amended) A drive shaft balancing simulator ~~for use in a method of balancing a rotary device for balanced rotational operation when connected to a drive shaft by a flexible couplingas~~ claimed in claim 9, the said drive shaft simulator having substantially half the mass of the drive shaft to be simulated.

9. (Original) A drive shaft balancing simulator for use in a method of balancing a rotary device for balanced rotational operation when connected to a drive shaft by a flexible coupling; the drive shaft simulator having a polar moment of inertia substantially equal to its diametral moment of inertia.

10. (Canceled)

11. (Original) A method of balancing a rotary device for balanced rotational operation in a rotary device and drive shaft assembly in which a drive shaft is connected to a rotary device by a flexible coupling; the said method comprising the steps of connecting a drive shaft simulator to the said rotary device; the drive shaft simulator having substantially half the mass of the drive shaft to be simulated and a polar moment of inertia substantially equal to its diametral moment of inertia, the drive shaft simulator being positioned with respect to the rotary device such that its centre of gravity is substantially coincident with the plane of flexibility of a flexible coupling, which in use, connects the rotary device to the drive

shaft being simulated, whereby to determine a balancing correction to be applied to the said rotary device for balanced operation when connected to a drive shaft of the type being simulated by a flexible coupling.